California CABG Outcomes Reporting Program
Data Abstractor Training Handbook

Version 3.0

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Effective with 2008 Discharges

Overview: DATA ELEMENT EXPORT ORDER (Effective 2008 Discharges)

Data Element	Classification	Origin
1. Medical Record Number	Identification	STS
2. Isolated CABG	Identification	**Non-STS**
3. Date of Surgery	Identification	STS
4. Date of Birth	Identification	STS
5. Patient Age	Risk Factor: Demographic	STS
6. Sex	Risk Factor: Demographic	STS
7. Race – White	Risk Factor: Demographic	STS
8. Race – Black/ African American	Risk Factor: Demographic	STS
9. Race – Asian	Risk Factor: Demographic	STS
10. Race – American Indian/Alaskan Native	Risk Factor: Demographic	STS
11. Race – Native Hawaiian/Pacific Islander	Risk Factor: Demographic	STS
12. Race – Other	Risk Factor: Demographic	STS
13. Hispanic or Latino Ethnicity	Risk Factor: Demographic	STS
14. Date of Discharge	Identification	STS
15. Discharge Status	Identification	STS
16. Date of Death	Identification	STS
17. Responsible Surgeon Name *(3 fields)*	Identification	**Non-STS**
17a. Surgeon Last Name	Identification	**Non-STS**
17b. Surgeon First Name	Identification	**Non-STS**
17c. Surgeon Middle Initial	Identification	**Non-STS**
18. Responsible Surgeon California License Number	Identification	**Non-STS**
19. Height (cm)	Risk Factor: Demographic	STS
20. Weight (kg)	Risk Factor: Demographic	STS
21. Diabetes	Risk Factor: Comorbidity/Other	STS
22. Hypertension	Risk Factor: Comorbidity/Other	STS
23. Infectious Endocarditis		STS
24. Peripheral Arterial Disease	Risk Factor: Comorbidity/Other	STS
25. Cerebrovascular Disease	Risk Factor: Comorbidity/Other	STS
26. CVD Type – Unresponsive Coma	Risk Factor: Comorbidity/Other	STS
27. CVD Type – TIA	Risk Factor: Comorbidity/Other	STS

Data Element Overview: EXPORT ORDER *(continued)*
(Effective 2008 Discharges)

Data Element	Classification	Origin
28. CVD Type – Non Invasive >75%	Risk Factor: Comorbidity/Other	STS
29. CVD Type – Prior Carotid Surgery	Risk Factor: Comorbidity/Other	STS
30. Cerebrovascular Accident	Risk Factor: Comorbidity/Other	STS
31. Cerebrovascular Accident Timing	Risk Factor: Comorbidity/Other	STS
32. Chronic Lung Disease	Risk Factor: Comorbidity/Other	STS
33. Immunosuppressive Treatment	Risk Factor: Comorbidity/Other	STS
34. Dialysis	Risk Factor: Comorbidity/Other	STS
35. Last Creatinine Level Preop (mg/dl)	Risk Factor: Comorbidity/Other	STS
36. Previous CABG	Risk Factor: Previous Intervention	STS
37. Previous Valve	Risk Factor: Previous Intervention	STS
38. Prior Percutaneous Coronary Intervention	Risk Factor: Previous Intervention	STS
39. Prior PCI Interval	Risk Factor: Previous Intervention	STS
40. Previous Myocardial Infarction	Risk Factor: Cardiac	STS
41. Myocardial Infarction Timing	Risk Factor: Cardiac	STS
42. Heart Failure	Risk Factor: Cardiac	STS
43. NYHA Classification	Risk Factor: Cardiac	STS
44. STS Cardiogenic Shock	Risk Factor: Cardiac	STS
45. Resuscitation	Risk Factor: Cardiac	STS
46. Arrhythmia	Risk Factor: Cardiac	STS
47. Arrhythmia Type – Vtach/Vfib	Risk Factor: Cardiac	STS
48. Arrhythmia Type – Third Degree Heart Block	Risk Factor: Cardiac	STS
49. Arrhythmia Type – Afib/Aflutter	Risk Factor: Cardiac	STS
50. Number of Diseased Coronary Vessels	Risk Factor: Hemodynamic Status	STS
51. Left Main Disease (% stenosis)	Risk Factor: Hemodynamic Status	**Non-STS**
52. Ejection Fraction Done	Risk Factor: Hemodynamic Status	STS
53. Ejection Fraction (%)	Risk Factor: Hemodynamic	STS

	Status	
54. Ejection Fraction Method	Risk Factor: Hemodynamic Status	STS
55. Mean Pulmonary Artery Done	Risk Factor: Hemodynamic Status	STS
56. Pulmonary Artery Mean	Risk Factor: Hemodynamic Status	STS
57. Mitral Insufficiency	Risk Factor: Hemodynamic Status	STS
58. Incidence	Risk Factor: Previous Intervention	STS
59. Status of Procedure	Risk Factor: Operative	STS
60. Emergent Reason	Risk Factor: Operative	
61. CPB Utilization	Process of Care	STS
62. CPB Utilization – Combination Plan	Process of Care	STS
63. Cardioplegia	Process of Care	STS
64. Internal Mammary Artery Used as Grafts	Process of Care	STS
65. Radial Artery Used	Process of Care	STS
66. LAD Artery Bypassed	Process of Care	**Non-STS**
67. Valve Done	Operative	STS
68. Aortic Valve Procedure	Valve Surgery	STS
69. Mitral Valve Procedure	Valve Surgery	STS
70. Tricuspid Valve Procedure	Valve Surgery	STS
71. Pulmonic Valve Procedure	Valve Surgery	STS
72. Reop Bleed/Tamponade	Complications	STS
73. Reop Graft Occlusion	Complications	STS
74. Deep Sternal Wound Infection	Complications	STS
75. Postoperative Stroke	Complications	STS
76. Continuous Coma >=24 Hours	Complications	STS
77. Prolonged Ventilation	Complications	STS
78. Postoperative Renal Failure	Complications	STS
79. Postoperative Dialysis Requirement	Complications	STS
80. Postoperative Atrial Fibrillation	Complications	STS
81. Facility Identification Number	Identification	**Non-STS**

Data Element Overview: Definitions

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Data Element and Definition	Comments and Examples	Origin
1. Medical Record Number: Patient medical record number at the hospital where surgery was performed. This field should be collected in compliance with state/local privacy laws.		STS
2. Isolated CABG: 1 = Yes; 2 = No. Answer 'No' if any if any of the procedures listed were performed during coronary artery bypass graft surgery ***(**Refer to page 36 at the end of this section for complete definition).***		**Non-STS**
3. Date of Surgery: mm/dd/yyyy Indicate the date of surgery (the date the patient enters the operating room).		STS
4. Date of Birth: mm/dd/yyyy Indicate the patient's date of birth using the 4-digit format for year. This field should be collected in compliance with state/local privacy laws.		STS
5. Patient Age (calculated by hospital/user): Patient age in years, at time of surgery. This should be calculated from the Date of Birth and the Date of Surgery, according to convention used in the USA (the number of birth date anniversaries reached by the date of surgery). If age is less than 18, the data record will be accepted into the database, but will not be included in the national analysis report.		STS
6. Sex: 1 = Male; 2 = Female. Indicate patient's sex at birth as either male or female. Patient's sex must be present for Risk Model to activate.		STS
7. Race – White: 1 = Yes; 2 = No. Indicate whether the patient's race, as determined by the patient or family, includes White. This includes a person having origins in any of the original peoples of Europe, the Middle East, or North Africa.		STS
8. Race – Black/African American: 1 = Yes; 2 = No. Indicate whether the patient's race, as determined by the patient or family, includes Black/African American. This includes a person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used		STS

Data Element Overview: Definitions

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Data Element and Definition	Comments and Examples	Origin
in addition to "Black or African American".		
9. Race – Asian: 1 = Yes; 2 = No. Indicate whether the patient's race, as determined by the patient or family, includes Asian. This includes a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.		STS
10. Race – American Indian/Alaskan Native: 1 = Yes; 2 = No. Indicate whether the patient's race, as determined by the patient or family, includes American Indian/Alaskan Native. This includes a person having origins in any of the original peoples of North and South American (including Central America), and who maintains tribal affiliation or community attachment.		STS
11. Race – Native Hawaiian/Pacific Islander: 1 = Yes; 2 = No. Indicate whether the patient's race, as determined by the patient or family, includes Native Hawaiian/Pacific Islander. This includes a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.		STS
12. Race – Other: 1 = Yes; 2 = No. Indicate whether the patient's race, as determined by the patient or family, includes any other race.		STS
13. Hispanic or Latino Ethnicity: 1 = Yes; 2 = No. Indicate if the patient is of Hispanic or Latino ethnicity as determined by the patient/family. Hispanic or Latino ethnicity includes patient report of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.		STS
14. Date of Discharge: mm/dd/yyyy Patient date of discharge. If the patient died in the hospital, the discharge date is the date of death.		STS

Data Element Overview: Definitions

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Data Element and Definition	Comments and Examples	Origin
15. Discharge Status: 1 = Alive; 2 = Dead. Patient status upon discharge from the hospitalization in which surgery occurred.	It is not necessary to report operative mortalities.	STS
16. Date of Death: mm/dd/yyyy Patient date of death.		STS
17. Responsible Surgeon Name (*3 separate fields*): **17a**. Surgeon Last Name **17b**. Surgeon First Name **17c**. Surgeon Middle Initial The responsible surgeon is the surgeon as defined in Section 97170. ***(**Refer to page 37 at the end of this section for additional coding clarifications).***		**Non-STS**
18. Responsible Surgeon CA License Number: California physician license number of responsible surgeon, assigned by the Medical Board of California of the Department of Consumer Affairs.		**Non-STS**
19. Height: Height of the patient in centimeters. Valid Values are between 20.0 and 251.0 cm.		STS
20. Weight: Indicate the weight of the patient in kilograms closest to the date of surgery. Valid values are between 10.0 and 250.0 kg.		STS
21. Diabetes: 1 = Yes; 2 = No. The patient has a history of diabetes, regardless of duration of disease or need for anti-diabetic agents. Includes on admission or preoperative diagnosis. Does not include gestational diabetes.	Requires chart documentation of a history of hypertension. Do not make the diagnosis based on BPs or meds if the diagnosis was not made by clinicians caring for the patient. Capture the presence and or history of diabetes mellitus, regardless of duration of disease or need for anti-diabetic agents diagnosed prior to surgical intervention.	STS

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Data Element and Definition	Comments and Examples	Origin
22. Hypertension: 1 = Yes; 2 = No. The patient has a diagnosis of hypertension, documented by one of the following: a. Documented history of hypertension diagnosed and treated with medication, diet and/or exercise b. Prior documentation pf blood pressure >140 mmHg systolic or 90 mmHg diastolic for patients without diabetes or chronic kidney disease, or prior documentation of blood pressure >130 mmHg systolic or 80 mmHg diastolic on at least 2 occasions for patients with diabetes or chronic kidney disease c. Currently on pharmacologic therapy to control hypertension	Hypertensive medications are used for other symptoms besides hypertension. Do not code "Yes" based on medications alone. BOTTOM LINE: A clinician has to state in the documentation that the patient has hypertension. Diagnosis of hypertension should not be based on a single reading. Code "Yes" for hypertension if patient has normal blood pressure readings but is on antihypertensive medication.	STS
23. Infectious Endocarditis: 1 = Yes; 2 = No. The patient has a history of endocarditis documented by one of the following: a. positive blood cultures b. vegetation on echocardiography and/or other diagnostic modality c. documented history of infectious endocarditis Note: If Infectious Endocarditis is discovered intraop, code "No"	BOTTOM LINE: the chart has to note the endocarditis. Positive blood cultures alone are not sufficient to code "Yes". Code "Yes" if a patient with a past history of infectious endocarditis, treated and received valve replacement surgery. For this to be coded "Yes" and to maintain consistency in data collection, **a diagnosis of infectious endocarditis must be a known risk factor preoperatively.**	STS
24. Peripheral Arterial Disease: 1 = Yes; 2 = No. Indicate whether the patient has a history of peripheral arterial disease (includes upper and lower extremity, renal, mesenteric, and abdominal aortic systems).		STS

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Data Element and Definition	Comments and Examples	Origin
This can include: a) claudication, either with exertion or at rest, b) amputation for arterial vascular insufficiency, c) vascular reconstruction, bypass surgery, or percutaneous intervention to the extremities (excluding dialysis fistulas and vein stripping), d) documented aortic aneurysm with or without repair, e) positive noninvasive test (e.g., ankle brachial index =<0.9, ultrasound, magnetic resonance or computed tomography imaging of >50% diameter stenosis in any peripheral artery, i.e. renal, subclavian, femoral, iliac). Peripheral arterial disease excludes disease in the carotid or cerebrovascular arteries.		
25. Cerebrovascular Disease (CVD): 1 = Yes; 2 = No. Indicate whether the patient has CVD, documented by any one of the following: CVA (symptoms >24 hours after onset, presumed to be from vascular etiology); TIA (recovery within 24 hours); non-invasive carotid test with >79% diameter occlusion; or prior carotid surgery. Does not include neurological disease processes such as metabolic and/or anoxic ischemic encephalopathy. NOTE: **80% or greater** on a non-invasive carotid test MAKES the definition; code "Yes"	Cerebrovascular disease that is of ischemic, hemorrhagic, occlusive, aneurismal or rupture type origin of the arterial system in the region of the head or neck. These are processes that have created some physiological abnormality in the arterial vessels. DO NOT include any of the peripheral arterial disease processes. Code "Yes" for cerebrovascular disease if there is a history of a carotid artery stent procedure.	STS
26. CVD Type – Unresponsive Coma: 1 = Yes; 2 = No. The patient has a history of Unresponsive Coma greater than 24 hours: patient experienced complete mental unresponsiveness and no evidence of psychological or physiologically appropriate responses to stimulation.		STS
27. CVD Type – TIA: 1 = Yes; 2 = No. The patient has a history of a Transient Ischemic Attack (TIA): patient has a history of loss of neurological function that was abrupt in onset but with complete return of function within 24 hours.		STS

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Data Element and Definition	Comments and Examples	Origin
28. CVD Type – Non Invasive >79%: 1 = Yes; 2 = No. The patient has a history of Non-invasive/invasive carotid test with greater than 79% occlusion. NOTE: **80% or greater** on a non-invasive carotid test MAKES the definition; code "Yes"	This test is also known as a carotid Doppler study. An angiogram of the carotid arteries can also be performed by magnetic resonance angiography (MRA).	STS
29. CVD Type – Prior Carotid Surgery: 1 = Yes; 2 = No. The patient has a history of previous carotid artery surgery and/or stenting.		STS
30. Cerebrovascular Accident: 1 = Yes; 2 = No. Indicate whether the patient has a history of stroke (i.e. any confirmed neurological deficit of abrupt onset caused by a disturbance in cerebral blood supply) that did not resolve within 24 hours.	Chart documentation of a diagnosis of CVA or stroke at any time prior to surgery is sufficient. The physical deficit can be in the form of extremity weakness, facial asymmetry, language (speech and/or cognitive thinking) impairment.	STS
31. Cerebrovascular Accident Timing: 1 = Recent (<=2 wk.); 2 = Remote (>2 wk.). Indicate when CVA events occurred. Events occurring within two weeks of the surgical procedure are considered recent (<=2 weeks); all others are considered remote (>2 weeks).		STS
32. Chronic Lung Disease: 1 = No; 2 = Mild; 3 = Moderate; 4 = Severe. If the patient has chronic lung disease, the severity level according to the following classification is: No: There is no chronic lung disease present. Mild: Forced expiratory volume in one second (FEV1) 60% to 75% of predicted, and/or on chronic inhaled or oral bronchodilator therapy. Moderate: FEV1 50-59% of predicted, and/or on chronic steroid therapy aimed at lung disease. Severe: FEV1 <50% predicted, and/or room air partial pressure of oxygen (pO2) < 60, room air partial pressure of carbon dioxide (pCO2) > 50 or on home O2.	The definition requires 1) documentation of a **diagnosis** of *chronic* pulmonary disability, and 2) confirmation based on either pulmonary function test (PFT) data or *chronic* therapy. Patients do NOT have COPD merely on the basis of a heavy smoking history or being labeled "COPD" in the chart without PFTs or history of prior therapy for COPD. Severity is determined by severity of PFT abnormality or type of chronic therapy.	STS

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Data Element and Definition	Comments and Examples	Origin
33. Immunosuppressive Treatment: 1 = Yes; 2 = No. Indicate whether the patient has used any form of immunosuppressive therapy within 30 days preceding the operative procedure. This includes, but is not limited to inhaled or systemic steroid therapy and chemotherapy. DO NOT include topical creams or inhalers that are steroidal in form. DO NOT include patients who receive a one or two time dose of systemic treatment, or a pre-operative/pre-cath protocol. Clarification: Steroids or other immunosuppressives given as part of a surgical protocol, solely because the patient is undergoing CABG, do not count. **NOTE:** Rheumatoid Arthritis treatments, such as **Enbrel, Humira and Remicade Infusions** are coded as "Yes" if given 30 days prior to surgery**.**	There are four classes of drugs considered to be immunosuppressive. Corticosteroids (only if taken systemically) Cytotoxic drugs, Antimetabolites and Cyclosporine. Patients post organ transplant or with rheumatologic conditions may be on immunosuppressive therapy other than corticosteriods such as Cyclosporine (Gengraf, Neoral, Sandimmune), Azathioprine (Imuran), Cyclophosamide (Cytoxan), Methotrexate, Tacrolimus (Prograf), Sirolimus (Rapamune) Mycophenolate mofetil – MMF (Cellcept). NOTE:	STS
34. Dialysis: 1 = Yes; 2 = No. The patient is currently undergoing dialysis.	Refers to whether the patient is currently on dialysis, not distant past history	STS
35. Last Creatinine Level Preop (mg/dl): Indicate the creatinine level closest to the date and time prior surgery. A creatinine level should be collected on all patients for consistency, even if they have no prior history. A creatinine value is a high predictor of a patient's outcome and is used in the predicted risk models. Valid values are between 0.1 and 30.0 mg/dl.		STS
36. Previous Coronary Artery Bypass Graft (CABG): 1 = Yes; 2 = No. Whether the patient had a previous coronary artery bypass graft prior to the current admission.	This applies only to surgical approach to revascularization. Angioplasty or other catheter based coronary artery occlusion treatment does not apply.	STS

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Data Element and Definition	Comments and Examples	Origin
37. Previous Valve: 1 = Yes; 2 = No. Whether the patient had a previous surgical replacement and/or surgical repair of a cardiac valve. This may also include percutaneous valve procedures and mitral clippings.	This may include percutaneous valve procedures such as percutaneous valvotomy or valvuloplasty, as well as surgical valve repair or replacement.	STS
38. Prior Percutaneous Coronary Intervention (PCI): 1 = Yes; 2 = No. Whether a previous Percutaneous coronary-intervention (PCI) was performed at any time prior to this surgical procedure. PCI refers to those treatment procedures that unblock narrowed coronary arteries without performing surgery. PCI may include, but is not limited to: balloon catheter angioplasty, percutaneous transluminal coronary angioplasty (PTCA), rotational atherectomy, directional atherectomy, extraction atherectomy, laser atherectomy and intracoronary stent placement.	There is no time limit on its historical occurrence. PCI refers to those non-surgical methods that unblock narrowed coronary arteries without performing surgery. This procedure may or may not have been in combination with a surgical intervention. A PCI may have been performed during this same admission, BUT prior to the surgical procedure.	STS
39. Interval from Prior PCI to Surgery: 1 = <= 6 Hours; 2 = > 6 Hours. The interval of time between the previous PCI and the current surgical procedure is either : <= 6 Hours; > 6 Hours	Intervals are calculated from the time of the conclusion of the PCI procedure (removal of the coronary dilation catheter) and surgical skin incision cut time.	STS
40. Previous Myocardial Infarction: 1 = Yes; 2 = No. Indicate if the patient has had at least one documented previous myocardial infarction at any time prior to this surgery. An acute myocardial infarction is evidenced by any of the following: A) A rise and fall of cardiac biomarkers (preferably troponin) with at least one of the values in the abnormal range for that laboratory [typically above the 99th percentile of the upper reference limit (URL) for normal subjects] together with at least one of the following manifestations of myocardial ischemia: a. Ischemic symptoms; b. ECG changes indicative of new ischemia (new ST-T changes, new left bundle branch block, or loss of R wave voltage),	Myocardial infarctions (MI) any time prior to surgery are counted. Chart reviewers should not attempt to diagnose an MI which was not diagnosed by the clinicians caring for the patient (eg, based on coder's retrospective reading of ECG). There is no time limit on when the myocardial infarction (MI) occurred. If the history and physical indicates there was a history of MI, yet no additional documentation is available to determine if definitional criteria are met, code as	STS

Data Element Overview: Definitions

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Data Element and Definition	Comments and Examples	Origin
c. Development of pathological Q waves in 2 or more contiguous leads in the ECG (or equivalent findings for true posterior MI); d. Imaging evidence of new loss of viable myocardium or new regional wall motion abnormality; e. Documentation in the medical record of the diagnosis of acute myocardial infarction based on the cardiac biomarker pattern in the absence of any items enumerated in a-d due to conditions that may mask their appearance (e.g., peri-operative infarct when the patient cannot report ischemic symptoms; baseline left bundle branch block or ventricular pacing) B) Development of new pathological Q waves in 2 or more contiguous leads in the ECG, with or without symptoms. C) Imaging evidence of a region with new loss of viable myocardium at rest in the absence of a non-ischemic cause. This can be manifest as: a. Echocardiographic, CT, MR, ventriculographic or nuclear imaging evidence of left ventricular thinning or scarring and failure to contract appropriately (i.e., hypokinesis, akinesis, or dyskinesis) b. Fixed (non-reversible) perfusion defects on nuclear radioisotope imaging (e.g., MIBI, thallium) D) Medical records documentation of prior myocardial infarction.	MI based on information provided. For an MI that has occurred during the same hospitalization as the surgery, definition criteria must be met. Note: The current data specifications do not recognize echo as a method of documenting MI. Do not code MI based on echo reports: look for further supportive documentation.	
41. Myocardial Infarction Timing: 1 = <=6 Hrs; 2 = >6 Hrs but <24 Hrs; 3 = 1 to 7 Days; 4 = 8 to 21 Days; 5 = >21 Days. The time period between the last documented myocardial infarction and the CABG surgery.		STS
42. Heart Failure: 1 = Yes; 2 = No. Indicate whether, within 2 weeks prior to the initial surgical procedure, a physician has diagnosed that the patient is **currently in heart failure** (HF). HF can be diagnosed based on careful history and physical exam, or by one of the following criteria:	Since evidence of recent HF symptoms is not always available in current medical record, **CCORP accepts chart documentation** that the patient was diagnosed with a HF episode within the two weeks prior to surgery (if presented at	STS

Data Element Overview: Definitions

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Data Element and Definition	Comments and Examples	Origin
1. Paroxysmal nocturnal dyspnea (PND); 2. Dyspnea on exertion (DOE) due to heart failure; 3. Chest X-ray (CXR) showing pulmonary congestion; 4. Pedal edema or dyspnea, and receiving diuretics; or 5. Pulmonary edema. Note: Severity is measured by NYHA Class within last two weeks	outside hospital within 2 weeks). The intent is to capture current diagnosis of or exacerbation of an existing condition. **DO NOT code stable or non-symptomatic compensated failure (i.e. stable, prior history).** A low ejection fraction (EF) without clinical presentation does not qualify for history of heart failure.	
43. NYHA Classification: 1 = Class I, 2 = Class II, 3 = Class III, 4 = Class IV. Indicate the patient's highest New York Heart Association (NYHA) classification within 2 weeks prior to surgery. NYHA classification represents the overall functional status of the patient in relationship to heart failure. Choose one of the following: **Class I:** Patient has cardiac disease but without resulting limitations of ordinary physical activity. Ordinary physical activity (e.g., walking several blocks or climbing stairs) does not cause undue fatigue, palpitation, dyspnea, or anginal pain. Limiting symptoms may occur with marked exertion. **Class II:** Patient has cardiac disease resulting in slight limitation of ordinary physical activity. Patient is comfortable at rest. Ordinary physical activity such as walking more than two blocks or climbing more than one flight of stairs results in limiting symptoms (e.g., fatigue, palpitation, dyspnea, or anginal pain). **Class III:** Patient has cardiac disease resulting in marked limitation of physical activity. Patient is comfortable at rest. Less than ordinary physical activity (e.g., walking one to two level blocks or climbing one flight of stairs) causes fatigue, palpitation, dyspnea, or anginal pain. **Class IV:** Patient has dyspnea at rest that increases with any physical activity. Patient has cardiac disease resulting in inability to perform any physical activity without discomfort. Symptoms may be present even at rest. If any physical	Select the highest level of heart function **leading** up to episode of hospitalization or the time of the procedure. NOTE: NYHA is rarely specified in clinician notes. Look at the presenting history, read the chart and make a best guess.	STS

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Data Element and Definition	Comments and Examples	Origin
activity is undertaken, discomfort is increased.		
44. STS Cardiogenic Shock: 1 = Yes; 2 = No Indicate whether the patient was, at the time,of procedure, in a clinical state of hypoperfusion **sustained for greater than 30 minutes**, according to either of the following criteria: A) Systolic blood pressure (BP) < 80 and/or Cardiac Index (CI) < 1.8 despite maximal treatment. B) Intravenous inotropes and/or intra-aortic balloon pump (IABP) necessary to maintain Systolic BP > 80 and/or CI > 1.8.	Patient either 1) currently has SBP <=80 mmHg and/or CI <= 1.8, or 2) previously the SBP and/or CI met these criteria but <u>now the patient is on inotropes or IABP</u>. To code "Yes" the episode had to have caused need for meds to continue, even upon entering surgery. Otherwise, code "No"	STS
45. Resuscitation: 1 = Yes; 2 = No. Whether the patient required cardiopulmonary resuscitation within one hour before the start of the operative procedure.	CPR must have been either started, on going or concluded within one hour before the start of the operative procedure. **<u>NOTE: For Resuscitation to be coded "Yes", Status of Procedure should be coded "Emergent Salvage"</u>**	STS
46. Arrhythmia: 1 = Yes; 2 = No. Indicate whether there is a history of preoperative arrhythmia (sustained ventricular tachycardia, ventricular fibrillation, atrial fibrillation, atrial flutter, third degree heart block) that has been treated with any of the following treatment modalities prior to the CABG surgery: a) Ablation therapy b) AICD c) Pacemaker d) Pharmacological treatment e) Electrocardioversion	**There is no time line to the presentation of these arrhythmias; code "Yes" for prior history.** The arrhythmia must have been treated and/or clinically documented with one or more of the definitional list of therapies. These do not include arrhythmias such as 1st or 2nd degree heart block, occasional premature ventricular contractions (PVC's) or supraventricular tachycardia (SVT). If the patient had a history of an arrhythmia (i.e.	STS

Data Element Overview: Definitions

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Data Element and Definition	Comments and Examples	Origin
	a-fib or V-tach) and is currently on medication to control rate and rhythm, and presents in sinus rhythm, code the patient "Yes", as having the arrhythmia. To define "treated for an arrhythmia": a patient is considered to be treated for arrhythmia if they are on a medication specifically to treat an arrhythmia. Today, most arrhythmias are treated with antiarrhythmics. Coumadin would not be considered a treatment for A-fib. Rather, patients may be on Coumadin to treat potential complications of the arrhythmia but not to treat the arrhythmia. Patients may or may not be on Digoxin to treat arrhythmias. In the past Digoxin was used to treat A-fib, but patients can also be on Digoxin to decrease the O2 demands on the heart, increase contractility etc. Therefore, do not assume that all patients that are on Digoxin are being treated for A-fib. Amniodarone and other antiarrhythmic medications are used to treat for A-fib and other arrhythmias. These antiarrhythmics should be recognized as such as compared to Digoxin and anticoagulants.	
47. Arrhythmia Type – Vtach/Vfib: 1 = Yes; 2 = No. Indicate whether sustained ventricular tachycardia or fibrillation is present within two weeks of the procedure.	V-tach rhythm must be sustained/persistent or paroxysmal sufficient as to require some type of intervention (pharmacological and/or electrical) to interrupt and cease the arrhythmia. **CCORP**	STS

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Data Element and Definition	Comments and Examples	Origin
	suggests the rhythm be sustained for 30 seconds or longer, or require cardioversion.	
48. Arrhythmia Type – Third Degree Heart Block: 1 = Yes; 2 = No Indicate whether third degree heart block is present within two weeks of the procedure. **Clarification: If a pacer pt. for HB is in Sinus Rhythm 2 weeks prior to surgery, code Arrhythmia = Yes and Arrhythmia Type HB = No.**	Heart block is applicable only if the patient has or did have 3rd degree heart block (complete heart block) within two weeks of the surgical procedure.	STS
49. Arrhythmia Type – Afib/Aflutter: 1 = Yes; 2 = No. Indicate whether atrial fibrillation or flutter is present within two weeks of the procedure. **Clarification: If a pacer pt. for Afib is in Sinus Rhythm 2 weeks prior to surgery, code Arrhythmia = Yes and Arrhythmia Type AFib = No.**	The pre-op arrhythmia is present within two weeks of the procedure, whether chronic, new onset, stable or unstable. The patient may be receiving prescribed medication.	STS
50. Number of Diseased Coronary Vessels: 1 = None; 2 = One; 3 = Two; 4 = Three. Indicate the number of diseased major native coronary vessel systems: LAD system, Circumflex system, and/or Right system with >=50% narrowing of any vessel preoperatively. NOTE: • Left main disease (>= 50%) is counted as TWO vessels (LAD and Circumflex). For example, left main and right coronary artery (RCA) would count as three total. • ***For valve misadventures where no vessels are diseased but the case is a single vessel bypass, do not report such cases to CCORP.***	The number of vessels refers to the number of major coronary arteries which are diseased. Consider a major coronary artery as diseased if it or one of its first order branches has a greater than or equal to 50% stenosis. The three major coronary arteries and their first order branches are 1) the left anterior descending (LAD) with its branches the diagonals; 2) the circumflex (Cx) with its branches the obtuse marginals (OM's) or circumflex marginals; and 3) the right coronary artery (RCA) with its branch the posterior descending artery (PDA). The STS now considers Left Main Disease to count as TWO vessels–-encompassing the LAD and Circumflex (see NOTE under definition column). As such, if the chart indicates that Left Main, LAD and Circumflex are all diseased,	STS

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	code the number of diseased vessels as TWO, so as not to double count the Left Main. When the posterior-descending artery (PDA) is supplied by the circumflex (i.e., when the circumflex instead of the right coronary artery is dominant), standard practice is to count the PDA (but NOT the non-dominant RCA) as a major vessel. Thus, a patient with stenosis of the LAD, an obtuse marginal branch off of the circumflex, and the PDA off of the circumflex would be coded as having 3 vessel disease. NOTE: the number of major arteries which are counted as diseased may differ from the number of bypass grafts placed (e.g., a graft may be placed to a vessel with < 50% stenosis or two grafts to the LAD and diagonal even though both are part of a single major vessel). A patient may never have more than three vessel disease. Once a coronary artery is found to be diseased, for the purposes of the STS, the vessel is considered diseased for the remainder of the patient's life and all subsequent reoperations. Note: If bypass is performed for an anomalous kinked vessel, this vessel is counted as one diseased or abnormal vessel.	

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51. Left Main Disease (% Stenosis): Percentage of compromise of vessel diameter in any angiographic view. Valid values are between 0 and 100. Clarification: When a range is given, report a whole number using the mean value (ex: 45 – 50% = 47%).	When stenosis is described qualitatively: "subtotal" = 99%, "critical" = 90%, "severe" = 80%,"tight" = 80% "significant" = 70%, "borderline" = 50%, "moderate" = 35%, "mild" = 20%. Terms such as plaquing or luminal irregularity should be considered mild (20%). Code "No" to left main disease if the patient has a stent in the left main from a previous intervention that is open with brisk flow at the time of the preoperative cath.	**Non-STS**
52. Ejection Fraction Done: 1 = Yes; 2 = No Indicate whether the ejection fraction was measured prior to the induction of anesthesia.	Anesthesia can alter the values to be collected. Do not collect data from intra-operative transeosophageal echography (TEE) after the induction of anesthesia. Collect data from the most recent source before surgery, even it is several months.	STS
53. Ejection Fraction (%): Indicate the percentage of the blood emptied from the ventricle at the end of the contraction. Use the most recent determination prior to the surgical intervention documented on a diagnostic report. Valid values range from 1.0 – 99.0. Clarification: If the EF or "left ventricular function" is described qualitatively, enter as follows: normal = 60%, mildly reduced or good = 50%, mild = 45%, fair = 40%, moderate = 30%, poor = 25% and severe = 20%. "Low limit of normal" = 50%. If "mild to moderate" mean 30 and 45% to get 37%.	Ejection fraction (EF) is an important predictor of risk. Make every effort to obtain it when available. **The official number on a report (documented source) outweighs a surgeon's estimate!** If a range of EF's are given, enter the mean value (e.g. for "30 to 35%", enter "32" - the system has no space for 32.5).	STS

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54. Ejection Fraction Method: Indicate how the ejection fraction measurement information was obtained preoperatively, including: 2 = LV Gram, 3 = Radionucleotide, 4 = Estimate (CCORP recommends not to use) 5 = ECHO, 6 = MRI/CT or 9 = Other **NOTE:** There is NO harvest coding with #'s 1, 7 and 8. Use the source of documentation to code this variable. Ex: if LVEF estimate is found from LV Gram, code "LV Gram" and not "estimate".	Since operative conditions may artifactually alter ejection fraction and mitral regurgitation, readings from preoperative trans-thoracic echocardiograms are generally more accurate than those from trans-esophageal echocardiograms (TEE's) done during surgery. Use the last determination of EF prior to surgery. "Estimated" LVEFs based on inspection of an echocardiogram or LV gram is acceptable if documented in the written report for that study. Calculated or quantified LVEF based on planimetry is not required. LVEFs which are guessed at based on clinical presentation (and not based on imaging of the ventricle) are not acceptable.	STS
55. Mean Pulmonary Artery Pressure Done: 1 = Yes; 2 = No. Indicate whether the mean pulmonary artery pressure in mmHg, was recorded from catheterization data or Swan-Ganz catheter BEFORE the induction of anesthesia.	Elevated pulmonary artery pressures are indicative of pulmonary hypertension, mitral valve disease and other pulmonary/cardiac diseases. Normal mean pulmonary artery pressure readings are between 9-17mm of pressure. If there are not any PA pressure readings recorded or available from heart cath –one may use PA pressure values from Swan Ganz Catheter inserted for surgery. If you capture the PA value from the Swan Ganz, it **must** be obtained prior to anesthesia induction.	STS

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Data Element and Definition	Comments and Examples	Origin
56. Pulmonary Artery Mean: The mean pulmonary artery pressure in mmHg, recorded from catheterization data or Swan-Ganz catheter BEFORE the induction of anesthesia. Valid values are between 1.0 and 99.0 mmHg. NOTE: Do not report the PA mean if the line is put in at the same time as anesthesia induction.	Normal values are 9 – 17 mm Hg. Values reflect basic cardiopulmonary function. Lower values may represent hypovolemia or vascular dilatation, while higher values may represent volume overload or vascular constriction. Values may also be medication induced. The PA should be marked not done unless specifically a right heart cath was done or the patient has a pre-op PA catheter. Do not record the PA catheter number in the OR after anesthesia induction or use the LVEDP as a surrogate. When diagnostic heart caths are done on an outpatient basis, most cardiovascular (CV) surgeons allow for cath data to be considered current if they are performed within six months of the date of surgery.	STS
57. Mitral Insufficiency: 0 = None; 1 = Trivial; 2 = Mild; 3 = Moderate; 4 = Severe; 5 = N/A. Indicate whether there is evidence of mitral valve regurgitation. Enter level of valve function associated with highest risk (i.e. worst performance). Enter highest level recorded in chart. If data not available or study suboptimal, enter N/A.	If a range of MR is given, enter the higher value (e.g. for "2 (mild) to 3 (moderate)" enter "3" or moderate). Since operative conditions may artifactually alter ejection fraction and mitral regurgitation, readings from preoperative trans-thoracic echocardiograms are generally more accurate than those from trans-esophageal echocardiograms (TEE's) done during surgery.	STS
58. Incidence: 1 = First cardiovascular surgery; 2 = First re-op cardiovascular surgery; 3 = Second re-op cardiovascular surgery; 4 = Third re-op cardiovascular surgery; 5 = Fourth or more re-op cardiovascular surgery.	CV surgeries include: CABG, valve replacement/repair, intracardiac repairs (ASD, VSD), ventricular aneurysmectormy or surgery	STS

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Whether this is the patient's: 1) First cardiovascular surgery; 2) First re-op cardiovascular surgery; 3) Second re-op cardiovascular surgery; 4) Third re-op cardiovascular surgery; 5) Fourth or more re-op cardiovascular surgery.	on the aortic arch. Use of CPB is not required. CV surgeries do **NOT** include: PCI's and non-cardiac vascular surgeries such as abdominal aortic aneurism repairs or fem-pop bypasses, percutaneous aortic stent grafts, percutaneous valves or pacemaker/ICD implantations.	
59. Status of Procedure: 1 = Elective; 2 = Urgent; 3 = Emergent; 4 = Emergent Salvage Indicate the clinical status of the patient prior to entering the operating room: **Emergent Salvage:** The patient is undergoing cardiopulmonary resuscitation en route to the operating room or prior to anesthesia induction. Clarification: If the cath was elective, the status is usually elective, even if the patient was admitted for surgery after cath unless 1) clinical decompensation meeting definition of urgent (eg, unstable angina) or 2) left main >=80%. **Emergent:** Patients requiring emergency operations will have ongoing, refractory (difficult, complicated, and/or unmanageable) unrelenting cardiac compromise, with or without hemodynamic instability, and not responsive to any form of therapy except cardiac surgery. An emergency operation is one in which there should be no delay in providing operative intervention. The patient's clinical status includes any of the following: **a. Ischemic dysfunction (any of the following):** (1) Ongoing ischemia including rest angina despite maximal medical therapy (medical and/or IABP)); (2) Acute Evolving Myocardial Infarction within 24 hours before surgery; or (3) pulmonary edema requiring intubation. **b. Mechanical dysfunction (either of the following):** (1) shock with circulatory support; or (2) shock without circulatory support.	Status refers to the patient's condition immediately ***before surgery***; **it should not reflect instability which occurs after the induction of anesthesia** or the operative risk but rather how expediently surgery must be performed. Thus some elective patients may be at higher risk than urgent patients; for example, an elderly patient with an ejection fraction of 20% and COPD operated on electively compared to a young patient with a normal ejection fraction who has ongoing unstable angina. RULE OF THUMB: **Elective** – waits at home. **Urgent** – waits in hospital. **Emergent** – cannot wait or is not safe to wait. **Emergent Salvage** – no pulse. Elective surgeries are performed on patients whose cardiac function has been stable. They are usually scheduled at least one day prior to surgery, and the clinical picture allows discharge from the hospital with readmission for surgery later.	STS

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Data Element and Definition	Comments and Examples	Origin
Urgent: Procedure required during same hospitalization in order to minimize chance of further clinical deterioration. Examples include but are not limited to: Worsening, sudden chest pain, CHF, acute myocardial infarction (AMI), anatomy, IABP, unstable angina (USA) with intravenous (IV) nitroglycerin (NTG) or rest angina. **Elective:** The patient's cardiac function has been stable in the days or weeks prior to the operation. The procedure could be deferred without increased risk of compromised cardiac outcome.	Urgent surgeries are performed on patients whose medical condition requires continuous hospitalization prior to CABG. A critical feature that distinguishes urgent from elective patients is that urgent patients ***cannot be safely discharged*** prior to their CABG, but they can safely await ABG in the hospital. An intra-aortic balloon pump or IV nitroglycerin may be part of treatment. Emergent surgeries are performed on patients whose condition dictates that the surgery be performed within several hours to prevent morbidity or death. These cases should take precedence over an elective case, cause a new operating room to be opened, or be done at night or on a weekend if necessary. A critical feature which distinguishes emergent from urgent patients is that emergent patients ***cannot safely delay CABG even while they are in the hospital.*** Emergent cases are rare. Examples include CABG performed as primary revascularization during an acute MI, immediately (within minutes to a few hours) after angioplasty disaster, or while the patient is *still in Cardiogenic shock.* Salvage surgeries are performed on a patient undergoing CPR ***en route*** to operating room or in the operating room prior to induction of anesthesia. Patient is pulseless within hour prior to surgery.	

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Data Element and Definition	Comments and Examples	Origin
60. Emergent Reason: Patients requiring emergency operations will have ongoing, refractory (difficult, complicated, and/or (unmanageable) unrelenting cardiac compromise, with or without hemodynamic instability, and not responsive to any form of therapy except cardiac surgery. An emergency operation is one in which there should be no delay in providing operative intervention. Indicate which one of the following applies as the reason why the patient had Emergent Status? Select one valid value (below): 1 = Shock with circulatory support 2 = Shock without circulatory support 3 = Pulmonary edema requiring intubation 4 = Acute Evolving Myocardial Infarction within 24 hours before surgery 5 = Ongoing ischemia including rest angina despite maximal medical therapy (medical and/or IABP) 6 = Valve Dysfunction - Acute Native or Prosthetic 7 = Aortic Dissection 8 = Angiographic Accident 9 = Cardiac Trauma		
61. CPB Utilization: 1 = None; 2 = Combination; 3 = Full. Indicate the level of CPB or coronary perfusion used during the procedure. 1) **None**: No CPB or coronary perfusion used during the procedure. 2) **Combination**: With or without CPB and/or with or without coronary perfusion at any time during the procedure: (a) At start of procedure: No CPB/No coronary perfusion > conversion to > CPB; (b) At start of procedure: No CPB/No coronary perfusion > conversion to > coronary perfusion; (c) At start of procedure: No CPB/No coronary perfusion > conversion to > coronary perfusion > conversion to > CPB 3) **Full**: CPB or coronary perfusion was used for the entire procedure.	Clarification: Coronary perfusion methods are used as an alternative to complete heart and lung bypass. They are often referred to perfusion assisted devices where just the coronary artery that is being grafted is perfused (distal) to the anastomoses site (a method of supplying distal perfusion to isolated coronary arteries while new grafts are constructed). While not as invasive as cardiopulmonary bypass it is still a method of supporting the myocardium during a period of relative ischemia. These devices allow for continued myocardial perfusion to the area of myocardium that is	STS

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Data Element and Definition	Comments and Examples	Origin
	being revascularized, therefore reducing any ischemic time to that region.	
62. CPB Utilization – Combination Plan: 1 = Planned; 2 = Unplanned. Whether the combination procedure from off-pump to on-pump was a planned or an unplanned conversion: 1) **Planned**: The surgeon intended to treat with any of the combination options described in "CPB Utilization" 2) **Unplanned**: The surgeon did not intend to treat with any of the combination options described in "CPB Utilization"		STS
63. Cardioplegia: 1 = Yes; 2 = No. Indicate whether cardioplegia was used.		STS
64. Internal Mammary Artery(ies) Used as Grafts: 1 = Left IMA; 2 = Right IMA; 3 = Both IMAs, 4 = No IMA. Indicate which internal mammary arter(ies) was/were used for grafts, if any: (a) Left IMA; (b) Right IMA; (c) Both IMAs; (d) No IMA.	Includes free graft (detached) IMAs.	STS
65. Radial Artery Used: 1 = No Radial; 2 = Left Radial; 3 = Right Radial; 4 = Both Radials Indicate which radial arter(ies) was/were used for grafts: (a) Left Radial artery; (b) Right Radial artery; (c) Both Radial arteries; (d) No Radial artery.		STS
66. LAD Artery Bypassed: 1 = Yes; 2 = No. Indicate whether any part of the Left Anterior Descending artery (Proximal; Mid; Distal; Diagonal) was bypassed for this surgical intervention.		STS
67. Valve Procedure Done: 1 = Yes; 2 = No. Indicate whether a surgical procedure was done on the Aortic, Mitral, Tricuspid or Pulmonic valves.		STS

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68. Aortic Valve Procedure: Indicate whether a surgical procedure was done or not done on the Aortic Valve. Select one of the following valid values: 1 = No 2 = Replacement 3 = Repair/Reconstruction 4 = Root Reconstruction with Valve Conduit 5 = Root Reconstruction w/ Valve Sparing 7 = Resection Sub-Aortic Stenosis 8 = Replacement + Aortic Graft Conduit (not a valve conduit) 9 = Resuspension Aortic Valve with Replacement of Ascending aorta 10 = Resuspension Aortic Valve without Replacement of Ascending aorta		STS
69. Mitral Valve Procedure: Indicate whether a surgical procedure was done or not done on the Mitral Valve. Select one of the following valid values: 1 = No 2 = Annuloplasty only 3 = Replacement 4 = Reconstruction with Annuloplasty 5 = Reconstruction without Annuloplasty		STS
70. Tricuspid Valve Procedure: Indicate whether a surgical procedure was done or not done on the Tricuspid Valve. Select one of the following valid values: 1 = No 2 = Annuloplasty Only 3 = Replacement 4 = Reconstruction with Annuloplasty 5 = Reconstruction without Annuloplasty 6 = Valvectomy		STS

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71. Pulmonic Valve Procedure: Indicate whether a surgical procedure was done or not done on the Pulmonic Valve. Select one of the following valid values: 1 = No 2 = Replacement 3 = Reconstruction		STS
72. Reoperation for Bleed/Tamponade: 1 = Yes; 2 = No. Indicate whether the patient returned to the operating room for mediastinal bleeding / tamponade.	Requires reopening the chest for bleeding. Do not capture reopening of the chest or situations of excessive bleeding that occur prior to the patient leaving the operating room at the time of the primary procedure. Do not include medically (nonoperatively) treated excessive post-operative bleeding/tamponade events. The patient must return to the operating room suite for surgical intervention. Include patients that return to an OR suite or equivalent OR environment (i.e., ICU setting) as identified by your institution, that require surgical re-intervention to investigate/correct bleeding/tamponade. Include only those bleeding/tamponade interventions that pertain to the mediastinum or thoracic cavity.	STS
73. Reoperation for Graft Occlusion: 1 = Yes; 2 = No. Indicate whether an operative re-intervention was required for graft occlusion due to coronary graft occlusion due to acute closure, thrombosis, technical or embolic origin.	Does not include post-op PCIs. Requires reopening of the chest to revise a graft. Requires a return to an OR suite to capture as a complication.	STS

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Data Element and Definition	Comments and Examples	Origin
74. Deep Sternal Wound Infection: 1 = Yes; 2 = No. Indicate whether patient, within 30 days postoperatively, had a deep sternal infection involving muscle, bone, and/or mediastinum REQUIRING OPEATIVE INTERVENTION. Must have ALL of the following conditions: 1) Wound opened with excision of tissue (I&D) or re-exploration of mediastinum; 2) Positive culture; 3) Treatment with antibiotics.	This is intended to be in-hospital infection, not a readmission for infection however STS coding requests coding for readmission as well. **Code according to STS guidelines and newsletter clarification (May 2008).**	STS
75. Postoperative Stroke > 72 Hours: 1 = Yes; 2 = No. Indicate whether the patient has a postoperative stroke (i.e., any confirmed neurological deficit of abrupt onset caused by a disturbance in cerebral blood supply) that did not resolve within 24 hours.	Central events are caused by embolic or hemorrhagic events. Neurological deficits such as confusion, delirium and/or encephalopatic (anoxic or metabolic) events are not to be coded in this field.	STS
76. Continuous Coma >= 24 Hours: 1 = Yes; 2 = No. A new postoperative coma that persists for at least 24 hours secondary to anoxic/ischemic and/or metabolic encephalopathy, thromboembolic event or cerebral bleed.	Do not code comas that are pharmacologically induced (anesthesia or intentionally drug induced).	STS
77. Prolonged Ventilation: 1 = Yes; 2 = No. Indicate whether the patient had prolonged pulmonary ventilator > 24 hours. Include (but not limited to) causes such as ARDS, pulmonary edema, and/or any patient requiring mechanical ventilation > 24 hours postoperatively. NOTE: ***Time is calculated from the point of leaving the OR and NOT when the patient was initially intubated.***	Postoperative period begins when patient leaves the O.R. A total of 24 hours, include initial and additional hours of mechanical ventilation. Do not include the hours ventilated if a patient returns to the operating room suite and requires re intubation as part of general anesthesia.	STS
78. Postoperative Renal Failure: 1 = Yes; 2 = No. Acute or worsening renal failure resulting in one or more of the following:		STS

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Data Element and Definition	Comments and Examples	Origin
1) Increase of serum Creatinine to >2.0 and 2x most recent preoperative Creatinine level and/or 2) A new requirement of dialysis postoperatively.		
79. Postoperative Dialysis Requirement: 1 = Yes; 2 = No. Indicate whether the patient had a new requirement for dialysis postoperatively, which may include hemodialysis, peritoneal dialysis, and any form of ultrafiltration.	May include either hemo or peritoneal dialysis. This includes a one time need for dialysis as well as implementation of longer term therapy. If the patient was on preoperative peritoneal dialysis and moved to hemodialysis postoperatively, this does not constitute a worsening of the condition and should not be coded as an event.	STS
80. Postoperative Atrial Fibrillation: 1 = Yes; 2 = No. Indicate whether the patient had a new onset of atrial fibrillation/flutter (AF) requiring treatment. Does not include recurrence of AF which had been present preoperatively.	DO NOT include patients that had preoperative atrial fibrillation (treated or nontreated). The event must be of new origin. The intent of this field is to capture new onset A Fib that requires treatment and NOT to capture a reoccurrence of A Fib which had been present pre-op.	STS
81. Facility Identification Number The six-digit facility identification number assigned to a hospital by the Office of Statewide Health Planning and Development, as defined in Section 97170.		**Non-STS**

Isolated CABG (definitional reference from page 13):**

The patient's surgery is defined as follows: when any of the procedures listed in Section A (below) is performed concurrently with the coronary artery bypass surgery, **the surgery will be considered non-isolated** and **the data element coded 'No'**. It is not possible to list all procedures because cases can be complex and clinical definitions are not always precise. When in doubt, the data abstractor should first seek an opinion from the responsible surgeon and then consult CCORP.

Section A

- Valve repairs or replacements
- Operations on structures adjacent to heart valves (papillary muscle, chordae tendineae, traebeculae carneae cordis, annuloplasty, infundibulectomy)
- Ventriculectomy
- Repair of atrial and ventricular septa, excluding closure of patent foramen ovale
- Excision of aneurysm of heart
- Head and neck, intracranial endarterectomy
- Other open heart surgeries, such as aortic arch repair, pulmonary endarterectomy
- Endarterectomy of aorta
- Thoracic endarterectomy (endarterectomy on an artery outside the heart)
- Heart transplantation
- Repair of certain congenital cardiac anomalies, excluding closure of patent foramen ovale (e.g., teratology of fallot, atrial septal defect (ASD), ventricular septal defect (VSD), valvular abnormality)
- Implantation of cardiomyostimulation system (Note: Refers to cardiomyoplasty systems only, not other heart-assist systems such as pacemakers or internal cardiac defibrillators (ICDs))
- Any aortic aneurysm repair (abdominal or thoracic).
- Repair of aortic dissection (for clarification only: 3/06)
- Aorta-subclavian-carotid bypass
- Aorta-renal bypass
- Aorta-iliac-femoral bypass
- Caval-pulmonary artery anastomosis
- Extracranial-intracranial (EC-IC) vascular bypass
- Coronary artery fistula
- Resection of a lobe or segment of the lung (e.g., lobectomy or segmental resection of lung). Does not include simple biopsy of lung nodule in which surrounding lung is not resected, biopsy of a thoracic lymph node or excision or stapling of an emphysematous bleb.
- Mastectomy for breast cancer (not simple breast biopsy)
- Amputation of any extremity (e.g., foot or toe)

If a procedure listed in Section B (next page) is performed concurrently with the coronary artery bypass surgery**, the surgery will be considered an isolated CABG** and **the data element coded 'Yes'** (unless a procedure listed in section A is performed during the same surgery). These particular procedures are listed because the Office has received frequent questions regarding their coding.

Section B

- Transmyocardial laser revascularization (TMR)
- Pericardiectomy and excision of lesions of heart

- Repair/restoration of the heart or pericardium. ***Surgeries whose principal goal is full pericardial stripping for preoperatively identified constrictive pericarditis are *non isolated* (for clarification only: 3/06)
- Coronary endarterectomy
- Pacemakers
- Internal cardiac defibrillators (ICDs)
- Fem-fem cardiopulmonary bypass (a form of cardiopulmonary bypass that should not be confused with aortofemoral bypass surgery listed in Section A)
- Thymectomy
- Thyroidectomy
- Maze procedures, surgical or catheter

.

Responsible Surgeon Name (definitional reference from page 15):**
"Responsible surgeon" means the principle surgeon who performs a coronary artery bypass procedure.

- The first and last name collected should exactly match the name assigned to the license number issued by the California Medical Board.
- The middle initial collected should match the first letter of the middle name assigned to the license number issued by the California Medical Board. Example: if a surgeon's middle name is Harry, the middle initial should be reported as 'H'. NOTE: do not include period (.).
- If a trainee performs this procedure, then the responsible surgeon is the physician responsible for supervising this procedure performed by the trainee. In situations in which a responsible surgeon cannot otherwise be determined, the responsible surgeon is the surgeon who bills for the coronary artery bypass procedure.